



# ENVIRONMENTAL INJUSTICE AND WASTE MANAGEMENT: A CASE STUDY OF CHERANALLOOR, KERALA

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## ABSTRACT

The rapid increase in the city's population is creating large quantities of Municipal Solid Waste and it becomes a serious task for the Urban Local Governments to manage. All types of waste and pollution may impact human rights. For instance, from their manufacturing to use, trade and disposal. Hazardous waste can have adverse impact on human health and ecosystem-infringing the rights of both. (UNEP) On 28 July 2022, the UN General Assembly adopted a resolution declaring that everyone on the planet has a right to a healthy environment. Improper waste management causes air pollution, water and soil contamination. Illicit dumping of waste adversely affects human rights of people to have a clean, safe and healthy environment which is a basic human right to be promised by the state to all. The uncontrolled and unscientific disposal of solid waste adversely affects the health and living conditions of the nearby residents. The rapid increase in population and unplanned urbanization has led to significant environmental degradation, resulting in improper waste management posing a substantial threat to human rights. This study examines the intersection of waste management and human rights, focusing on the experiences of the Cheranalloor community, living in the suburbs of Kochi, Kerala. Through a comprehensive survey of 120 participants, this research reveals the severe environmental, health, and socioeconomic consequences of indiscriminate waste disposal. The findings underscore the need for holistic waste management approaches that prioritize community well-being and environmental justice.

**KEYWORDS:** Waste Management, Environmental Injustice, Human Rights, Pollution

## INTRODUCTION

Rapid urbanization, population growth, and lifestyle changes have significantly escalated garbage production in urban areas, particularly in Kochi Municipal Corporation. Unplanned urban development, coupled with the deficiency in civic responsibility, has rendered solid waste management a critical challenge for local urban authorities. The inability of local self-governing bodies to fulfill their statutory obligations regarding solid waste management has further exacerbated the waste crisis. As the city expanded in size and population, a centralized approach to waste management became imperative. The accelerated urbanization, rising population, and lifestyle changes dramatically increased waste generation. These factors, exacerbated by unplanned development and a lack of civic consciousness, rendered waste disposal a significant challenge for the Corporation and a growing threat to public health and the environment (Jadhav, 2020). The case of Cheranalloor, a suburb of Kochi city, provides a compelling illustration of the profound human and environmental consequences of unscientific waste disposal practices.

## Theoretical Framework

This study is based in environmental justice theory, which examines the disproportionate environmental burdens borne by marginalized communities. Focusing on the experiences of the Cheranalloor community, this research highlights the intersectionality of environmental degradation and human rights violations demonstrating how inadequate waste management impacts the environment and erodes the quality of life and health of vulnerable populations.

## METHODOLOGY

A mixed-methods approach was employed to investigate the impacts of waste dumping in Cheranalloor. A survey of 120 participants was conducted, with samples selected randomly within a 3-kilometer radius of the dumping yard. The areas selected for the survey comprised five locations under two panchayats: South Chittoor, Ambalakkadavu, Kothadu, Korampadam, and Kandanad.

## Waste Dumping at Cheranalloor

From 1996 to 2004, Kochi Municipal Corporation dumped its urban waste at Cheranalloor, a village lying in the outskirts of the city. Cheranalloor is a suburb of Kochi city in the state of Kerala, India and lies on the banks of Periyar river. The area was named after its earlier inhabitants who found this place very beautiful and fertile, hence named Cheranalloor meaning 'good place to join'. It also means 'Good village of Cheras'. Cheranalloor is a low lying area surrounded by backwaters, lagoons, canals and wetland. The village covers about 10.59 sq km. As per the census India 2011 Cheranalloor town population consists of 30594. The residents of Cheranalloor were a traditionally agrarian and fishing community, who do farming during the rainy season and prawn farming in summer season. Now most of them are engaged in other jobs including construction works in Kochi city.

From 1996 to 2004, Kochi Municipal Corporation dumped its urban waste at South Chittoor under Cheranalloor village panchayat. The dumping yard of 2/8 acres was very close

to Kothadu river, a branch of Periyar and a harijan colony comprising 22 families was situated just 150 m away from the dumping yard causing serious environmental damage and health hazards to the people living nearby the dumping yard

## FINDINGS

### Water Scarcity

The area of Cheranalloor generally experiences water scarcity. Their main source of water was from Kothad river, wells, ponds, borewell etc. People began to face extreme water scarcity since waste dumping began at Cheranalloor. Out of 120 people surveyed 105 had the opinion that scarcity of water intensified with the dumping of waste near Kothad river, which was their main source of portable drinking water. Due to the leachate from the waste, well water got contaminated and there was colour change and foul smell. The residents of Korampadam who experience extreme water scarcity said that they were forced to use contaminated water that led to health issues as jaundice spread in the area, and few experienced skin disease and eye itching.

### Health Issues

The unscientific dumping of waste in the water logged area of Cheranalloor, without proper landfilling resulted in the spread of contagious diseases. Respondents believed that health problems in the area had increased after the dumping began and there was an increase in their health expense. The main health issues people faced were, skin disease, respiratory problem, jaundice and gastritis.

### Air Pollution

People responded that the foul smell emanating from the piled up garbage made their life miserable. They expressed loss of appetite due to bad smell from the yard and few experienced breathing problems and headache due to continuous inhale of foul smell.

### Soil Pollution

The unscientific dumping of waste greatly polluted the land and soil of the area. The degradation of land and soil was caused due to hazardous chemical substances in waste mainly emanating from non biodegradable materials. People had the opinion that the fertility and productivity of the land decreased because of waste dumping which caused the decline of agriculture in the area. The chemicals and toxic substances discharged from the waste destroyed the paddy cultivation, the traditional occupation of the residents.

### Loss of Occupation

People of Cheranalloor who were traditionally agrarian and fishing communities experienced a serious jolt to their occupation with the hazardous waste dumping on the banks of the river. The toxic chemicals from the garbage got dissolved in the river polluting it. As a result there was a large decline in aquatic organisms, mainly fishes and crabs. This decline adversely affected the fishing community of Ambalakadavu region, just 3km from the dumping area. Due to low income from fishing, they were forced to abandon their traditional occupation and had to find other jobs in the city, some engaged

in illegal sand mining and a few remained unemployed. During the survey it was noted that women go to work as housemaids to earn daily bread while their husbands remain idle at home. Prawn farming also was affected due to water contamination as prawns do not breed in polluted water.

### Social Impact

The social life of the people in the area also affected, due to waste dumping. People living near the dumping yard revealed that no visitors came to their home due to foul smell. People shared their concern on an increase in antisocial activities in the areas close to the dumping yard. The yard was not only a breeding ground for mosquitoes and flies but also a breeding centre for antisocial elements. As a result of all these grave issues there was a decline in land value, when the dumping was practiced.

### Legal and Human Rights Analysis

All these situations represented a grave infringement on the residents' fundamental right to a healthy and clean environment, thus violating Article 21 of the Indian Constitution, which asserts the Right to Life. The Right to Life transcends mere existence; it encompasses the right to live with dignity and to enjoy safe, potable water, clean air, and an overall healthy environment. The residents of Cheranalloor were unjustly denied these basic human rights, and compelled to endure unsanitary living conditions that prevented them from maintaining their dignity and pursuing their livelihoods. Human rights and the environment are intrinsically intertwined. Right to a clean, safe, healthy and sustainable environment is an essential human right which was denied to the people living near the dumping yard. When environmental rights are violated, people and the planet suffer from reduced health and well being.

### Community Response and Resistance

In response to these egregious violations, the people of Cheranalloor organized themselves into an action council aimed at terminating the waste dumping practices. They staged protests, including forming a human chain, to compel the Kochi Corporation to cease its operations. Ultimately, their civil resistance, coupled with intervention from the Ombudsman, led to a cessation of the city's waste disposal at Cheranalloor after seven years of indiscriminate dumping.

## CONCLUSION

The case of Cheranalloor highlights the urgent need for holistic, rights-based approaches to urban waste management. By prioritizing environmental justice, community participation, and sustainable development, cities can develop more equitable and effective waste management systems. This study recommends the implementation of scientific waste management protocols, community-inclusive waste governance mechanisms, robust environmental impact assessment frameworks, and transparent and equitable waste disposal strategies.

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